

Amendments To the Claims**Claims 1-23 (Cancelled)**

Claim 24 (Original): A system for use in analyzing multiple samples simultaneously by absorption detection, which system comprises:

- (i) a planar array of multiple containers, into each of which can be placed a sample,
- (ii) a light source for emitting light to pass through the planar array of multiple containers,
- (iii) a photodetector, which is in line with the light source, is positioned in line with and parallel to the planar array of multiple containers, and comprises a linear array of photosensitive elements for receiving light passing through the planar array of multiple containers, wherein, upon illumination of a photosensitive element by light passing through the planar array of multiple containers, a pixel signal corresponding to the light received by the photosensitive element is generated,
- (iv) an analog to digital converter, which converts the pixel signal for each illuminated photosensitive element to a digital value corresponding to the light received by the respective photosensitive element, and
- (v) a processor, which receives the digital values and generates a plurality of output signals corresponding thereto, each output signal being a function of at least two digital values corresponding to the light passing substantially concurrently through two photosensitive elements.

Claims 25-26 (Cancelled)

Claim 27 (Original): The system of claim 24, wherein each pixel signal is converted into a sequence of digital values and the output signals are a function of an average over time of the sequence of digital values.

Claims 28-33 (Cancelled)

Claim 34 (Original): A system for use in analyzing multiple samples simultaneously by absorption detection, which system comprises:

- (i) a planar array of multiple containers, into each of which can be placed a sample,
- (ii) a light source for emitting light to pass through the planar array of multiple containers,
- (iii) a photodetector, which is in line with the light source, is positioned in line with and parallel to the planar array of multiple containers, and comprises a linear array of photosensitive elements for receiving light passing through the planar array of multiple containers, wherein, upon illumination of a photosensitive element by light passing through the planar array of multiple containers, a pixel signal corresponding to the light received by the photosensitive element is generated,
- (iv) an analog to digital converter, which converts the pixel signal for each illuminated photosensitive element to a digital value corresponding to the light received by the respective photosensitive element, and
- (v) a processor, which receives the digital values and generates a plurality of output signals corresponding thereto, each output signal being a function of at least two digital values corresponding to the light received by two photosensitive elements, respectively, so that the output signals correspond to the light passing through the planar array of multiple containers.